Rpt. C.11 (Comp.).

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 35533
(For London Office only).

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
Suffolk Coast				

Port of Survey _____

Date of Survey 11/3/41

Surveyor's Signature _____

Particulars of Classification

Moulded Dimensions: Length 155·0' Breadth 28·0' Depth 11·67

Δ @ 11-6 draught = 1085 Tons
10-0 900 Tons (estimated)

Moulded displacement at moulded draught = 85 per cent. of moulded depth (10·02) 905 tons

Coefficient of fineness for use with Tables ·730   J. Robb

Depth for Freeboard (D).

Moulded depth ... ... 11·67

Stringer plate ... ... ·03

Sheathing on exposed deck
$T\left(\dfrac{L-S}{L}\right)=$

Depth for Freeboard (D) = 11·70

Depth correction.

(a) Where D is greater than Table depth
(D − Table depth) R =

$$\dfrac{(11·70-10·33)1·192}{1·37}=+1·64$$

(b) Where D is less than Table depth (if allowed)
(Table depth − D) R =

If restricted by superstructures

Round of Beam correction.

Moulded Breadth (B)

Standard Round of Beam = $\dfrac{B \times 12}{50}$ =

Ship's Round of Beam =

Difference

Restricted to

Correction = $\dfrac{\text{Diff}^n}{4} \times \left(1-\dfrac{S_1}{L}\right)$ = − ·18

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
„ overhang ...					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward					
F'cle enclosed ...					
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward					
Total					

Standard Height of Superstructure _____

„ „ R.Q.D. _____

Deduction for complete superstructure

Percentage covered $\dfrac{S}{L}$ =

„ „ $\dfrac{S_1}{L}$ =

„ „ $\dfrac{E}{L}$ =

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, Line B.
(corrected for absence of forecastle (if required))

Interpolation for bridge less than ·2L (if required)

Deduction = − 14·32

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.		1				1	
⅙L from A.P. ...		4				4	
⅖L „ ...		2				2	
Amidships ...		4				4	
⅖L from F.P. ...		2				2	
⅙L „ ...		4				4	
F.P.		1				1	
Total ...							

$\dfrac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}}=$

$\dfrac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}}=$

$\dfrac{\text{Length of enclosed superstructure}}{\text{L}}$ forward of amidships =

„ „ „ aft of „ =

Correction = $\dfrac{\text{Difference between sums of products}}{18}\left(·75-\dfrac{S}{2L}\right)=$

If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Ft.

Depth to Freeboard Deck =

Summer freeboard =

Moulded draught (d) =

Deduction for Tropical freeboard and addition for
Winter freeboard = $\dfrac{d}{4}$ inches =

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ =

Tons per inch immersion at summer load water line

T =

Deduction = $\dfrac{\Delta}{40\,T}$ inches =

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	−
Depth Correction		
Deduction for superstructures ...		
Sheer correction		
Round of Beam correction ...		
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc. ...		

Summer Freeboard =

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :

Tropical Fresh Water Line above Centre of Disc			Tropical Fresh Water Freeboard	
Fresh Water Line „ „			Fresh Water	
Tropical Line „ „			Tropical	
Winter Line below „ „			Winter	
Winter North Atlantic Line „ „ „			Winter North Atlantic	

10m 3.37. T.

011079 - 011088 - 0157

$$\text{Extreme } \Delta \quad 11.5'' d = 1073 \text{ Tons}$$
$$11-6 \ d = 1085 \text{ Tons} \quad \Big\} \ 12 \text{ Tons } T.$$
$$11-7 \ d = 1090 \quad . \quad \Big\} \ 13 \text{ Tons } T.$$
$$\text{Mld. } \Delta \quad 11-6 d = 1085 \times .995 = 1080 \text{ Tons.}$$
$$\text{Mld } \Delta @ \ 11.67' \times .85 = 10.02' \times \left\{1080 - \left(\frac{17.76 \times 10}{178}\right)^{9}\right\} = 902 \text{ Tons}$$
$$\frac{(11.5 - 10.02)}{1.48' = 17.76''}$$